**Patent** 

Attorney Docket: 156886-0030

Accordingly, please amend this application as shown herein. In view of the amendments and remarks herein, final allowance of the application is respectfully requested.

## IN THE CLAIMS

Please cancel claims 9, 11-19, 21, 35, 37, 44, and 50 without acquiescence in the grounds of rejection, and without prejudice to pursue any of the original or previously pending claims at a later time by continuation application or otherwise.

Please replace claims 1, 20, 27, 40 and 45 with the following amended version thereof. Mark-ups of the amended claim illustrating the changes thereto appear at the end of this paper.

1. (Amended) A system for facilitating diagnosis and maintenance of electronic control networks, comprising:

a wireless diagnostic device adapted for manual transport, said wireless diagnostic device comprising a transmitter and receiver for communicating over a wireless communication channel with a control network to be monitored, diagnosed, or tested; and

at least one wireless ground station, said at least one wireless ground station comprising a ground station receiver attuned to said wireless communication channel, whereby transmitted messages between said wireless diagnostic device and the control network over said wireless communication channel are monitored;

wherein said wireless diagnostic device comprises a self-contained graphical display device physically connected to a self-contained wireless intermediary unit through a cable connection, said wireless intermediary unit containing said transmitter and receiver for communicating over said wireless communication channel with said control network.





Attorney Docket: 156886-0030

(Amended) A diagnostic and maintenance system, comprising:

a portable wireless diagnostic device, said wireless diagnostic device comprising a transmitter and receiver for communicating over a wireless communication channel with a control network to be monitored, diagnosed, or tested;

a plurality of wireless ground stations, at least one of said wireless ground stations comprising a receiver attuned to said wireless communication channel whereby transmitted messages between said portable wireless diagnostic device and the control network are monitored;

a ground station interface connected to said plurality of wireless ground stations; and

a local area computer network connected to said ground station interface, said local area computer network comprising one or more user terminals, said one or more user terminals each comprising a screen display whereby information relating to said transmitted messages is displayed;

wherein said portable wireless diagnostic device comprises a self-contained graphical display device physically connected to a self-contained wireless intermediary unit through a cable connection, said wireless intermediary unit containing said transmitter and receiver for communicating over said wireless communication channel with said control network.

(Amended) A diagnostic and maintenance system, comprising:

a plurality of portable wireless diagnostic devices, each comprising a transmitter and receiver, said portable wireless diagnostic devices communicating wirelessly with one or more control networks to be diagnosed, monitored, or tested, each of said portable wireless diagnostic devices programmed to perform at least one diagnosis or test function relating to said one or more control networks; and

at least one wireless ground station, said at least one wireless ground station comprising a ground station receiver attuned to at least one wireless communication channel utilized by said portable wireless diagnostic devices, whereby transmitted messages between said portable wireless diagnostic devices and said one or more control networks are monitored:

cf<sub>0-3-</sub>





Attorney Docket: 156886-0030



wherein each of said portable wireless diagnostic devices comprises a self-contained graphical display device connected to a self-contained wireless intermediary unit through a cable connection, said wireless intermediary unit containing said transmitter and receiver for wirelessly communicating with said one or more control networks.

By

(Amended) A system for facilitating diagnosis and maintenance of electronic control networks, comprising:

a portable diagnostic device, said portable diagnostic device comprising a transmitter and receiver for communicating over a wireless communication channel with an on-vehicle control network, said on-vehicle control network comprising a control network wireless interface for communicating with said portable diagnostic device over said wireless communication channel; and

at least one ground station, said at least one ground station comprising a ground station receiver attuned to said wireless communication channel, whereby said ground station monitors messages transmitted over said wireless communication channel between said portable diagnostic device and said on-vehicle control network;

wherein said portable diagnostic device comprises a self-contained graphical display device physically connected to a self-contained wireless intermediary unit, said wireless intermediary unit containing said transmitter and receiver for communicating over said wireless communication channel with said control network.



A method, comprising the steps of:

transmitting diagnostic messages between a portable diagnostic device and an on-vehicle control network over a wireless communication channel, said portable diagnostic device comprising a personal digital assistant, wherein said transmitting step comprises the step of transmitting messages between a self-contained wireless intermediary unit and the on-vehicle control network over said wireless communication channel; and



Attorney Docket: 156886-0030

35.

monitoring the transmitted diagnostic messages at a ground station, said ground station comprising a ground station receiver attuned to said wireless communication channel.

